Center for Self Organizing Intelligent Systems

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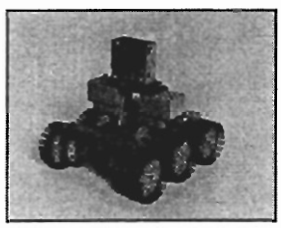
Background

Established in 1993 to assist Utah companies in developing marketable products which use the technology of intelligent systems. The center works with Utah industry to identify intelligent system solutions for new or existing commercial products

Technology Development Progress

- Intelligent Systems Technology generally includes any device and/or software concept which attempts to artificially replicate unique cognizance and control abilities of the human mind.
- Artificial neural networks are designed to mimic the ability of the brain and central nervous system to learn and generalize from past experience.
- Fuzzy logic was introduced as a way of emulating the reasoning processes fundamental to human intelligence.
- Neuro-control emulates the sensory and communication mechanisms of the human neural system.
- **The center has completed a licensing agreement with Visionary Products Inc., to produce and market the Red Rover educational project for the middle school markets in the U.S.A. and Canada**



Highlights and Accomplishments

- Products developed from center projects include: two irrigation control systems, two applications to exercise machines, autonomous micro-robotic vehicle control products, a coin recognition product, intelligent wheelchair control augmentation systems for the severely handicapped and aged.
- A vehicular sensing platform for hazardous-waste site applications and a "hands-on" Mars exploration educational kit have been developed.
- Intelligent irrigation controllers licensed to Campbell Scientific, Inc. have a projected sales volume of $5 million a year over a seven-year period.
- Virtual presence controllers attempt to place a remote human operator or controller in a virtual environment identical to that encountered by the controlled process.
- Monetary Services, Inc., using a center-developed neural network and computer-imaging technology, estimates a minimum of 30,000 installation sites for a device to be leased for $1,000 a month.
- **ProForm Fitness Products, Inc., estimates first-year sales of exercise equipment with center developed fuzzy-belt controller and fuzzy "spotter" to be $40 million.**

Summary Data:

Current

1994-95 Award	$150,000
Matching Funds	$436,000
Patents Issued	0
Copyright Received	3
License Agreements	3
Spin-off Companies	1
Companies Assisted	15
Industry Jobs	1
Center Jobs	11

Cumulative

Awards	$410,000
Matching Funds	$1,325,904
Patents Issued	2
Copyright Received	3
License Agreements	3
Spin-off Companies	1